Application No.: 10/683,979 Amendment dated: April 13, 2006 Reply to Office Action of December 13, 2005 Attorney Docket No.: 1058US2

a.) Listing of Claims

1. (Cancelled)

2. (Cancelled)

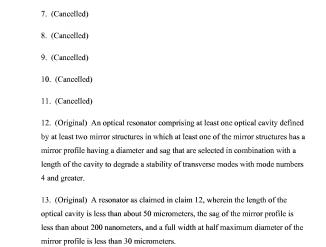
3. (Cancelled)

4. (Cancelled)

5. (Cancelled)

6. (Cancelled)

This listing of claims will replace all prior versions and listings of claims in this application:



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14. (Original) A resonator as claimed in claim 12, wherein the length of the optical cavity is less than about 30 micrometers, the sag of the mirror profile is less than about 150 nanometers, and a full width at half maximum diameter of the

iess man about 130 nanometers, and a run width at han maximum diameter of the

mirror profile is less than 20 micrometers.

15. (Original) A resonator as claimed in claim 12, wherein the length of the

optical cavity is less than about 20 micrometers, the sag of the mirror profile is

less than about 100 nanometers, and a full width at half maximum diameter of the

mirror profile is less than 15 micrometers.

16. (Original) A resonator as claimed in claim 12, wherein the sag of the mirror

profile is less than about 150 nanometers.

17. (Original) A resonator as claimed in claim 12, wherein the sag of the mirror

profile is less than about 100 nanometers.

18. (Original) A resonator as claimed in claim 12, wherein an optical distance

between the mirror structures is tunable.

19. (Original) A resonator as claimed in claim 12, wherein an optical distance

between the mirror structures is tunable by out-of-plane deflection of one of the

mirror structures.

20. (Cancelled)

21. (Cancelled)

22. (Cancelled)

23. (Cancelled)

24. (Cancelled)

25. (Cancelled)

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26. (Cancelled)

27. (Cancelled)

28. (Previously presented) A resonator as claimed in claim 12, wherein a net profile of the mirror structures is concave in a center region surrounding an optical axis and flat and/or convex in an annular region surrounding the center region, and wherein the diameter and sag of the center region degrades the

stability of transverse modes with mode numbers 4 and greater.

29. (new) An optical resonator comprising at least one optical cavity defined by at least two mirror structures in which at least one of the mirror structures has a mirror profile having a diameter and sag, wherein the diameter and sag in combination with a length of the cavity degrade a stability of transverse modes with mode numbers 4 and greater.